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ABSTRACT

A follow-up study of teacher education graduates was carried out for the purpose of evaluating, improving, and modifying programs for the preparation of educational personnel. An extension of a longitudinal study being conducted at Iowa State University, this component addresses the following basic concerns: (1) the quality of the program; (2) the effectiveness of the program in providing the basic learning experiences that lead to successful job performance; (3) the sensitivity of the program to supply and demand factors; (4) factors influencing current employment situations; and (5) the importance and adequacy of the content of teacher preparation programs. Other information includes graduates' employment history, personal characteristics, and demographic variables such as age, sex, and place of residence. Of the 3,867 teacher education graduates (from Spring 1980 through Summer 1989), 3,420 received questionnaires, and 2,274 (66.5%) completed and returned them. Participants in the study completed questionnaires at graduation, and at 1 year and 5 years following graduation. Of all graduates from Spring 1980 through 1983-1984, 36 to 39% returned all three questionnaires--graduate, first year, and fifth year; in recent years, return rates have dropped some. The study has provided insights in the evaluation and improvement of the teacher education program; administrators and faculty have used results in making decisions about the program; and increased understanding has been achieved about factors related to why teacher education graduates leave or remain in teaching in the early years. (LL)

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# A Longitudinal Examination of Teaching Potential, Career Paths, and Teacher Retention of Teacher Education Graduates

Division J Symposium

Overview

by

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# A Longitudinal Examination of Teaching Potential, Career Paths, and Teacher Retention of Teacher Education Graduates

## INTRODUCTION

Various approaches are used by colleges of Education to evaluate, improve, and modify programs for the preparation of educational personnel. Among the various approaches in the evaluation process are follow-up studies of graduates from teacher preparation programs. In addition to the information provided on program assessment by graduates, it is assumed that the evaluation would also be based on reactions from persons involved with the certification and employment of graduates as well as from those involved with supervising and advising during teacher preparation.

The basic concerns addressed by the longitudinal study of Iowa State University teacher education graduates include: 1) the quality of the program; 2) the effectiveness of the program in providing the basic learning experiences that lead to successful job performance; 3) the sensitivity of the program to supply and demand factors; 4) factors influencing current employment situations; and 5) importance and adequacy of the content of teacher preparation programs. Other information includes employment history, personal characteristics, and demographic variables, such as age, sex, and place of residence.

Information is collected by the Research Institute for Studies in Education during teacher preparation and the first employment years. The periods of time and types of information collected include:

| | Time | Information |
|---|---|---|
| A. | Entrance into teacher preparation program | Characteristics of students (information from college records), reasons for selection and expectations |
| B. | Student teaching | Evaluation of selected student teaching characteristics |
| C. | At graduation | Evaluation of program and employment plans |
| D. | First year after graduation | Evaluation of program, suggestions for changes, factors related to employment |
| E. | Fifth year after graduation | Evaluation of program, suggestions for changes, job history, factors related to employment and job performance |
| F. | Tenth year after graduation | Evaluation of program, suggestions for improvement, employment history, job performance, and satisfaction |

These time periods and types of information were designed to assist in improving the quality of teacher preparation programs and the selection and retention of those individuals who will be successful in education positions.

The 1990-91 academic year study marks the eleventh in a series of studies on the evaluation of the Teacher Preparation Program at Iowa State University (Table 1). Each year, a monograph is prepared on this project and distributed to faculty in the College of Education and other interested individuals and groups. The data have also been used in several technical research reports and dissertations.

## CAREER PATH MODEL

To provide a conceptual framework for this research, a longitudinal model has been developed, and the current version is being tested. Also, use of the model provides insights about factors related to adequacy of preparation and performance. This model, the Career Path Model, was designed to assist educators in understanding why teacher education graduates enter or do not enter teaching and why teachers leave or remain in teaching through the early years following entry.

The researchers were guided by career choice and development theories and previous models, particularly those of Super (1957), Holland (1973), Krumboltz (1979) and Chapman (1983) in developing the Career Path Model depicted in Figure 1. Our model draws upon career choice and development theories, especially the work of Super (1980; 1957), and reflects his premises that (a) career development is dynamic, cumulative, and evolutionary, and (b) although individuals possess the potential for success and satisfaction in a number of occupations, career satisfaction is determined by congruence between interests and abilities required in a particular occupation and those developed by the individual. Using Holland's Theory of Person-Environment Congruence and the work values identified by Super and Hall (1978), Chapman and Lowther (1982) developed a recursive conceptual model relating teacher personal characteristics, skills, abilities, values, professional achievement, and career satisfaction. The Krumboltz's Social Learning Theory of Career Decision Making, was used by Chapman (1983) in his proposed

**TABLE 1**

## Longitudinal Study of Teacher Preparation Program

DATA COLLECTION

| EL-SEC 204 | STUDENT TEACHING EVALUATION | GRADUATES | FOLLOWUP 1 YEAR | FOLLOWUP 5 YEAR | FOLLOWUP 10 YEAR |
|---|---|---|---|---|---|
| **Quarter System** | | | | | |
| | | SPRING 1980 | 1981 | 1985 | 1990 |
| 1980-81 | | 1980-81 | 1982 | 1986 | |
| **Semester System** | | | | | |
| 1981-82 | | 1981-82 | 1983 | 1987 | |
| 1982-83 | | 1982-83 | 1984 | 1988 | |
| 1983-84 | | 1983-84 | 1985 | 1989 | |
| 1984-85 | | 1984-85 | 1986 | 1990 | |
| 1985-86 | | 1985-86 | 1987 | | |
| 1986-87 | | 1986-87 | 1988 | | |
| 1987-88 | SPRING 1988 | 1987-88 | 1989 | | |
| 1988-89 | 1988-89 | 1988-89 | 1990 | | |
| 1989-90 | 1989-90 | 1989-90 | | | |

Reports and Publications

| | |
|---|---|
| 21 | Research reports - Teacher Evaluation Project series |
| 2 | Research reports - Modeling Education Activities series |
| 1 | Journal article |
| 3 | Papers at meetings |
| 15 | Dissertations and theses completed |
| 2 | Dissertations in process |

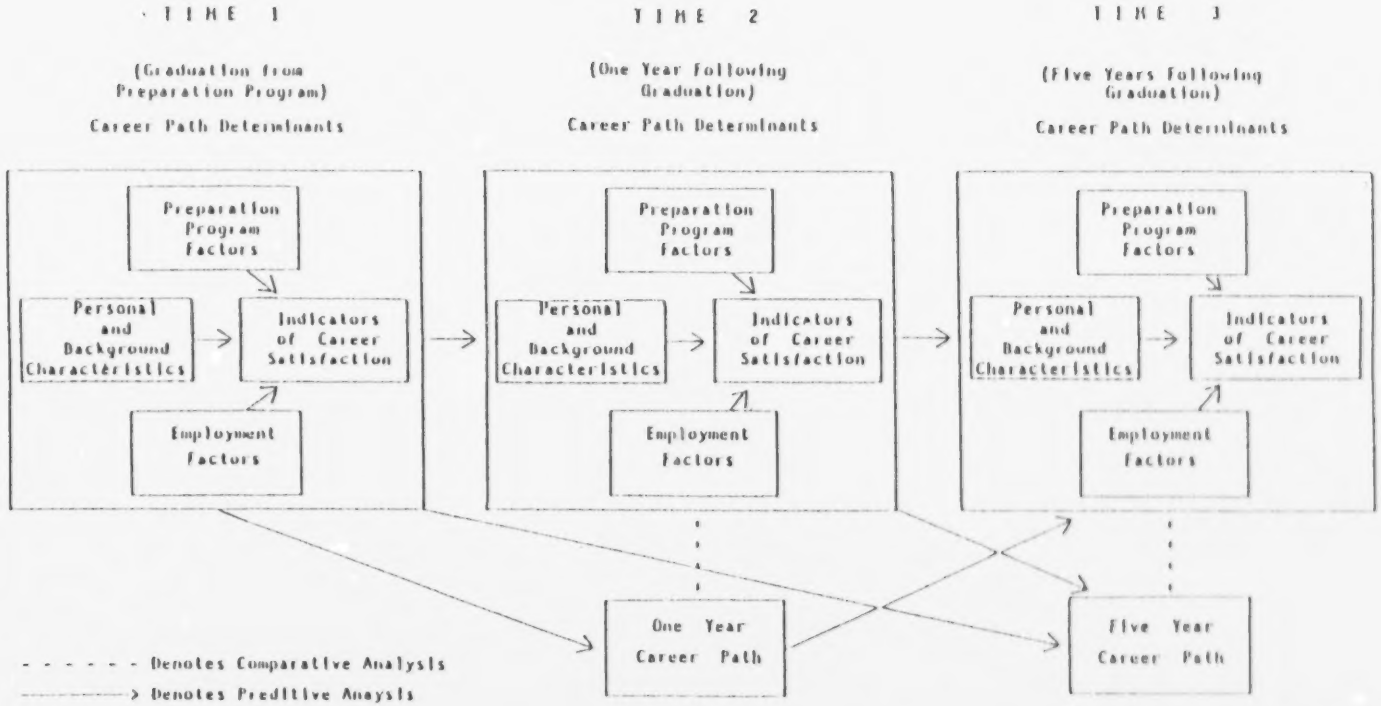


FIGURE 1. Career Path Model as developed and presented in Janet C. Sweeney's dissertation (1987): "Development and testing of a longitudinal model designed to examine the factors that influence the career paths of Iowa State University teacher education graduates"

longitudinal model to explain teacher retention. In developing his model, Chapman suggested that:

> ". . . to understand a teacher's decision to remain in or leave teaching, it is necessary to take into account (a) the personal characteristics of the teacher, (b) the nature of teacher training and early teaching experience, (c) the degree to which the teacher is socially and professionally integrated into the teaching profession, (d) the satisfaction teachers derive from their career, and (e) the external environmental influences impinging on the teacher's career." (p. 47)

Since the Career Path Model is longitudinal, three major time points are included: graduation from the preparation program (Time 1), one year following graduation (Time 2), and five years following graduation (Time 3). The model is presently being expanded to include Time 4 (ten years following graduation). At each of the time points, Career Path Determinants are measured. These determinants consist of factors within the four major areas: Personal and Background Characteristics, Preparation Program Factors, Employment Factors, and Indicators of Career Satisfaction. In addition to the four data collection times listed previously, data are collected from teacher education students near the completion of their first teacher preparation course and during student teaching.

The model allows for both predictive and comparative analyses. The solid arrows denote the causal relationships in the model; the dotted lines denote where differences between the Career Path Determinants of teacher education graduates who were following differing career paths can be examined.

## COMPARISON OF RESPONDENTS AND NONRESPONDENTS

From Spring 1980 through Summer 1989, 3,867 graduates received certification in teacher education. Of these graduates, 2,274 (58.8%) completed and returned the questionnaires at graduation (see Table 2). The number of graduates who actually received questionnaires at graduation was 3,420, since questionnaire data are collected from the academic year graduates who appear on a midterm "intending to graduate" list. Summer graduates (except in 1981) are not surveyed. Of the 3,420 graduates who received questionnaires, 66.5 percent returned them.

TABLE 2
*Comparison of Respondents and Non-Respondents for Graduate Questionnaire*

| ITEM/RETURN PATTERN | NUMBER | MEAN |
|---|---|---|
| GRADUATING GRADE POINT AVERAGE | | |
| Returned questionnaire | 2274** | 3.10 |
| Did not return questionnaire | 1146 | 2.99 |
| Not mailed to | 447 | 3.08 |
| F ratio = 30.41 F probability = 0.00 | | |
| HIGH SCHOOL RANK | | |
| Returned questionnaire | 1970 | 21.91 |
| Did not return questionnaire | 868 | 26.85 |
| Not mailed to | 277 | 26.03 |
| F ratio = 25.59 F probability = 0.00 | | |
| ACT | | |
| Returned questionnaire | 1667 | 22.19 |
| Did not return questionnaire | 0802 | 21.54 |
| Not mailed to | 253 | 22.36 |
| F ratio = 6.85 F probability = 0.00 | | |

* All teacher education graduates from Spring 1980, academic years 1980-81, 1981-82, 1982-83, 1983-84, 1984-85, 1985-86, 1986-87, 1987-88, 1988-89, and summer sessions 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, and 1989 are included.

** 2276 respondents actually returned questionnaires. Two respondents in Spring 1983 removed the ID preventing data set matching. For this analysis, these two cases are coded as 'did not return questionnaire'.

Note that those graduates with higher grade point averages, high school ranks, and ACT scores completed and returned the questionnaire. Also 69 percent of the female graduates returned completed questionnaires, as compared to 57 percent for male graduates (Table 3).

## RESPONDENT RETURN RATES

During the first six years of data collection, approximately two-thirds of the graduates returned the questionnaires, about three-fifths returned first year questionnaires, and nearly three-fifths returned fifth year questionnaires (Table 4). Approximately 50 percent returned both the graduate and first year questionnaires (matched sample). Of all graduates from Spring 1980 through 1983-84, 36 to 39 percent returned all three

TABLE 3
*Gender by Returned/Not Returned Questionnaire*

| RETURN PATTERN | FEMALE<br>NUMBER<br>PERCENT | MALE<br>NUMBER<br>PERCENT | TOTAL<br>NUMBER<br>PERCENT |
|---|---|---|---|
| Returned | 1795<br>69.4 | 479<br>57.4 | 2274<br>66.5 |
| Not returned | 791<br>30.6 | 355<br>42.6 | 1146<br>33.5 |
| Total | 2586<br>75.6 | 834<br>24.4 | 3420<br>100.0 |

$x^2$ = 40.07 $x^2$ probability = 0.00

questionnaires -- graduate, first year, and fifth year. In recent years, return rates have dropped some; efforts are currently being made to bring the return rate back to that of earlier years.

## SUMMARY

Over the years, the longitudinal study has provided valuable insights in evaluating and improving the teacher education program. Administrators and faculty have used the results of the study in making decisions about the program. Also, the many dissertations and reports have increased understanding about factors related to performance, evaluation of program by students, satisfaction, and career paths of ISU graduates.

TABLE 4
*Number of Respondents by Study by Year*

| Year of Graduation | Student Teaching | Graduation | First Year Followup | Fifth Year Followup | Tenth Year Followup |
|---|---|---|---|---|---|
| | Number of Respondents | Number of Respondents | Number of Respondents | Number of Respondents | Number of Respondents |
| Spring 1980 (N=268) | | | | | |
| ALL respondents | | 178 (66%) | 171 (64%) | 171 (64%) | 166 (62%) |
| Matched graduation/first year | | | 130 (49%) | | |
| Matched graduation/first year/ fifth year | | | | 101 (38%) | |
| Matched graduation/first year/ fifth year/tenth year | | | | | processing |
| 1980-81 (N=395) | | | | | |
| ALL respondents | | 283 (72%) | 235 (59%) | 238 (60%) | |
| Matched graduation/first year | | | 195 (49%) | | |
| Matched graduation/first year/ fifth year | | | | 145 (37%) | |
| 1981-82 (N=392) | | | | | |
| ALL respondents | | 268 (68%) | 250 (64%) | 233 (59%) | |
| Matched graduation/first year | | | 201 (51%) | | |
| Matched graduation/ first year/fifth year | | | | 154 (39%) | |
| 1982-83 (N=354) | | | | | |
| ALL respondents | | 244 (69%) | 224 (63%) | 213 (60%) | |
| Matched graduation/first year | | | 179 (51%) | | |
| Matched graduation/ first year/fifth year | | | | 136 (38%) | |
| 1983-84 (N=349) | | | | | |
| ALL respondents | | 229 (66%) | 202 (58%) | 200 (57%) | |
| Matched graduation/first year | | | 164 (47%) | | |
| Matched graduation/ first year/fifth year | | | | 127 (36%) | |

TABLE 4 (continued)

| Year of Graduation | Student Teaching | Graduation | First Year Followup | Fifth Year Followup | Tenth Year Followup |
|---|---|---|---|---|---|
| | Number of Respondents | Number of Respondents | Number of Respondents | Number of Respondents | Number of Respondents |
| 1984-85 (N=291) | | | | | |
| ALL respondents | | 197 (68%) | 183 (63%) | 172 (59%) | |
| Matched graduation/first year | | | 144 (49%) | | |
| Matched graduation/ first year/fifth year | | | | Processing | |
| 1985-86 (N=337) | | | | | |
| ALL respondents | | 209 (62%) | 173 (51%) | | |
| Matched graduation/first year | | | 136 (40%) | | |
| 1986-87 (N=347) | | | | | |
| ALL respondents | | 200 (58%) | 171 (49%) | | |
| Matched graduation/first year | | | 133 (38%) | | |
| 1987-88 (N=388) | | | | | |
| ALL respondents | 188 (S88) | 220 (57%) | 192 (49%) | | |
| Matched STE/graduates | | 113 | | | |
| Matched graduation/first year | | | 139 (36%) | | |
| 1988-89 (N=395) | | | | | |
| ALL respondents | 368 | 218 (55%) | Processing | | |
| Matched STE/graduates | | 147 | | | |
| Matched graduation/first year first year | | | Processing | | |

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